Fig.1A

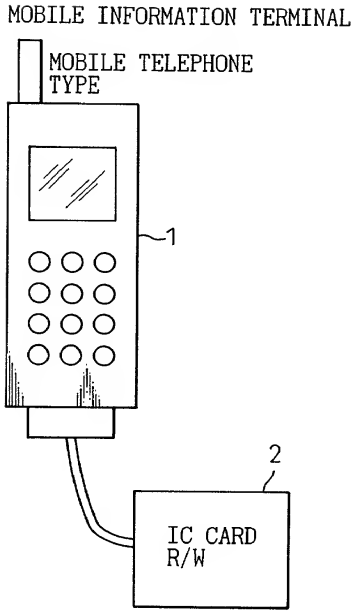

MOBILE INFORMATION TERMINAL
MOBILE TELEPHONE TYPE
1
2
IC CARD R/W

Fig.1B

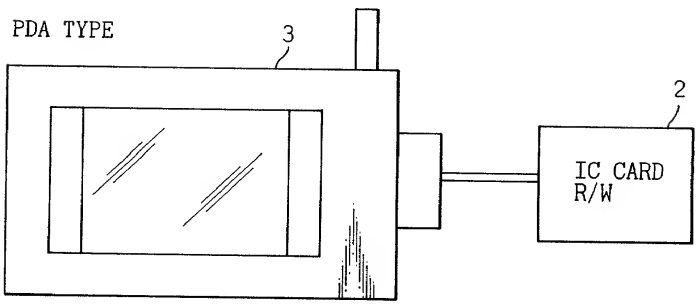

PDA TYPE
3
2
IC CARD R/W

Fig.2A CONTACT TYPE IC CARD R/W BUILT-IN

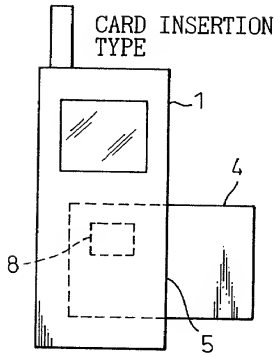


Fig.2B

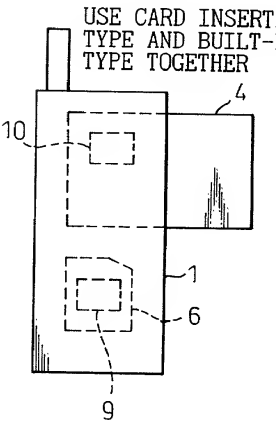
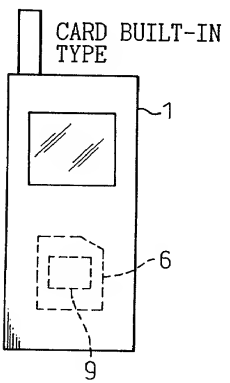
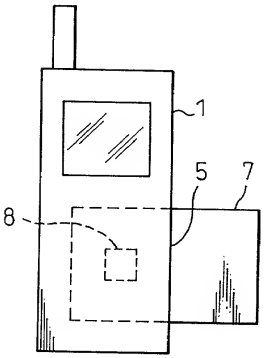


Fig.2C



NONCONTACT TYPE IC CARD R/W BUILT-IN

Fig.3A



BOTH OF CONTACT TYPE IC CARD R/W AND NONCONTACT TYPE IC CARD R/W BUILT-IN

Fig.3B

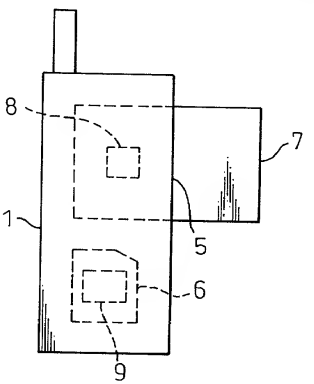


Fig. 4

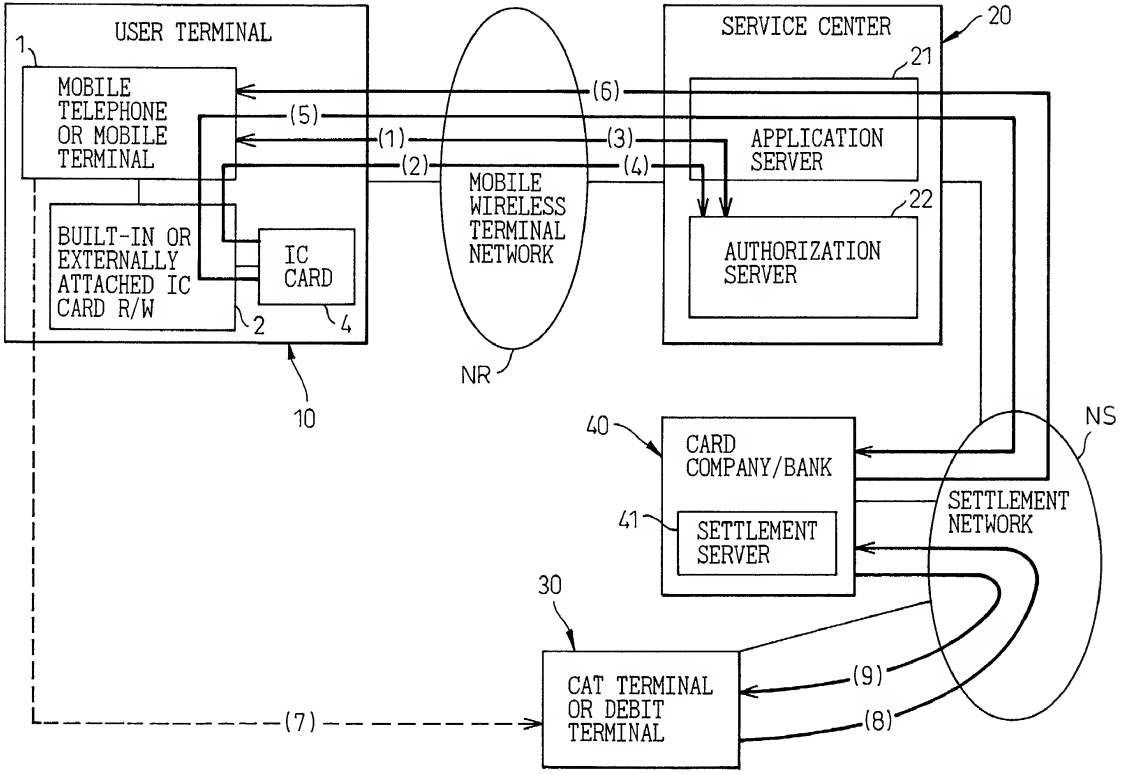


Fig.5

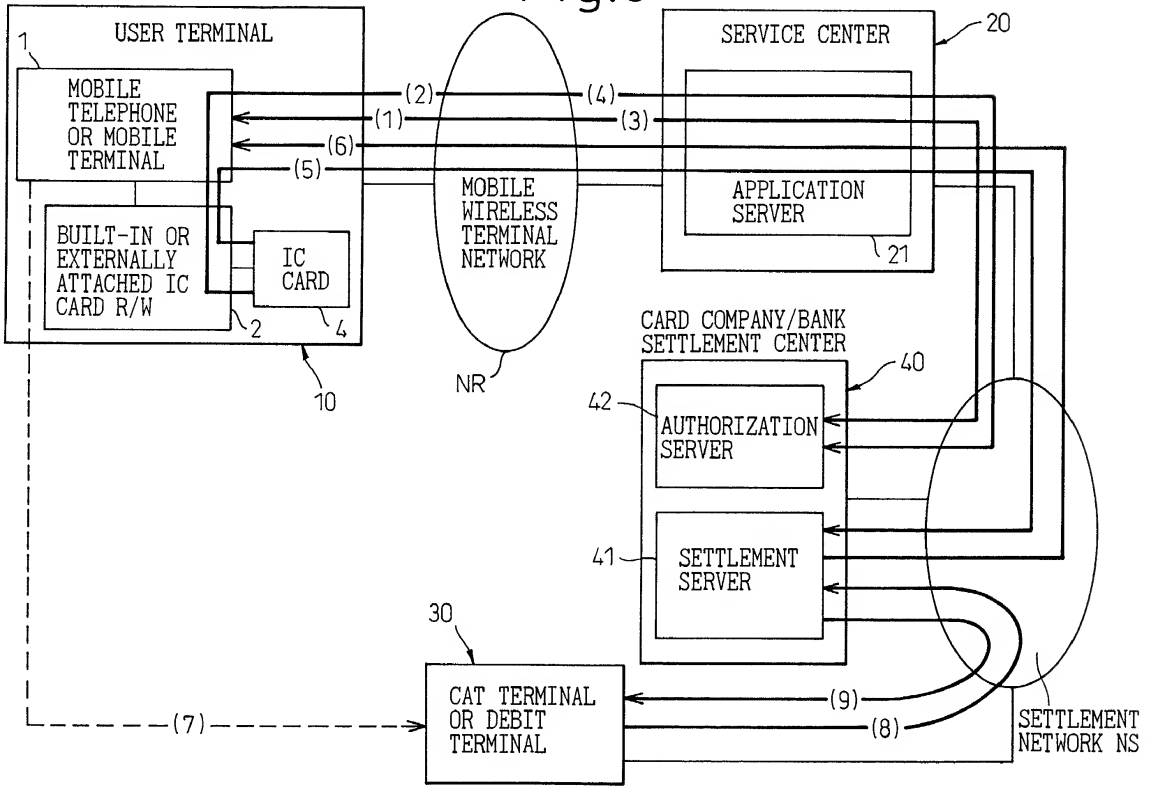

USER TERMINAL
1
MOBILE TELEPHONE OR MOBILE TERMINAL
BUILT-IN OR EXTERNALLY ATTACHED IC CARD R/W
2
IC CARD
4
10
(1)
(2)
(3)
(4)
(5)
(6)
(7)
MOBILE WIRELESS TERMINAL NETWORK
NR
SERVICE CENTER
20
APPLICATION SERVER
21
CARD COMPANY/BANK SETTLEMENT CENTER
40
42
AUTHORIZATION SERVER
41
SETTLEMENT SERVER
30
CAT TERMINAL OR DEBIT TERMINAL
(8)
(9)
SETTLEMENT NETWORK NS

Fig.6

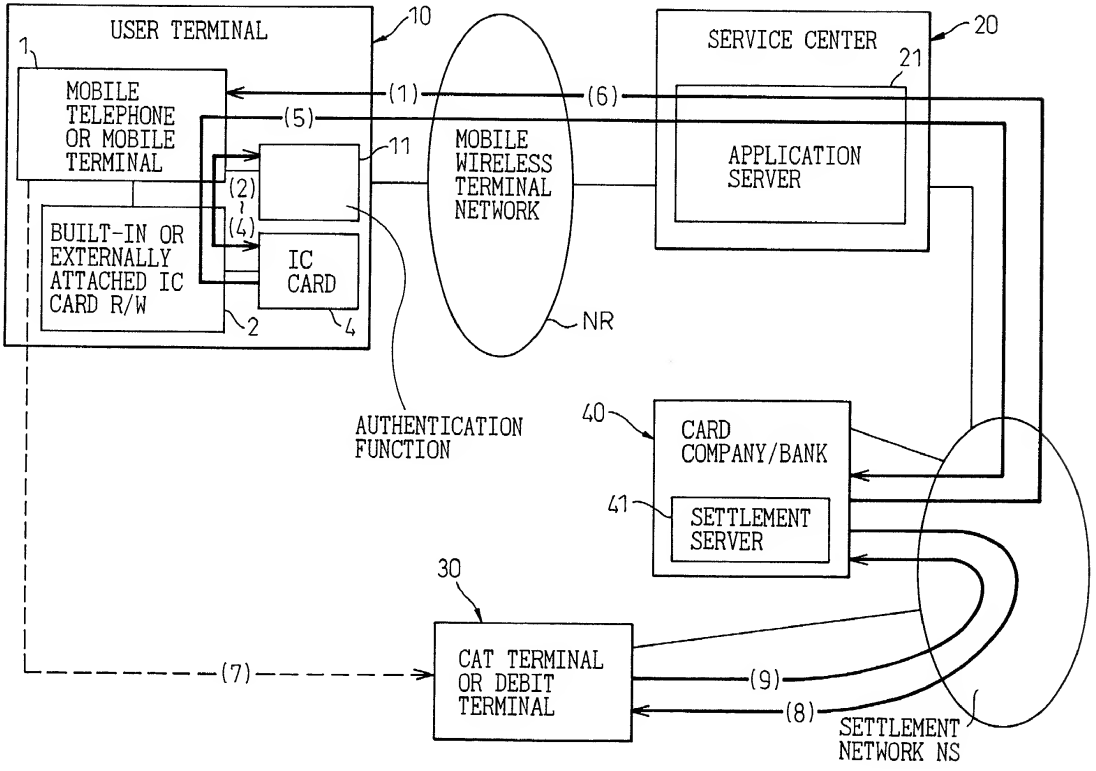


Fig.7

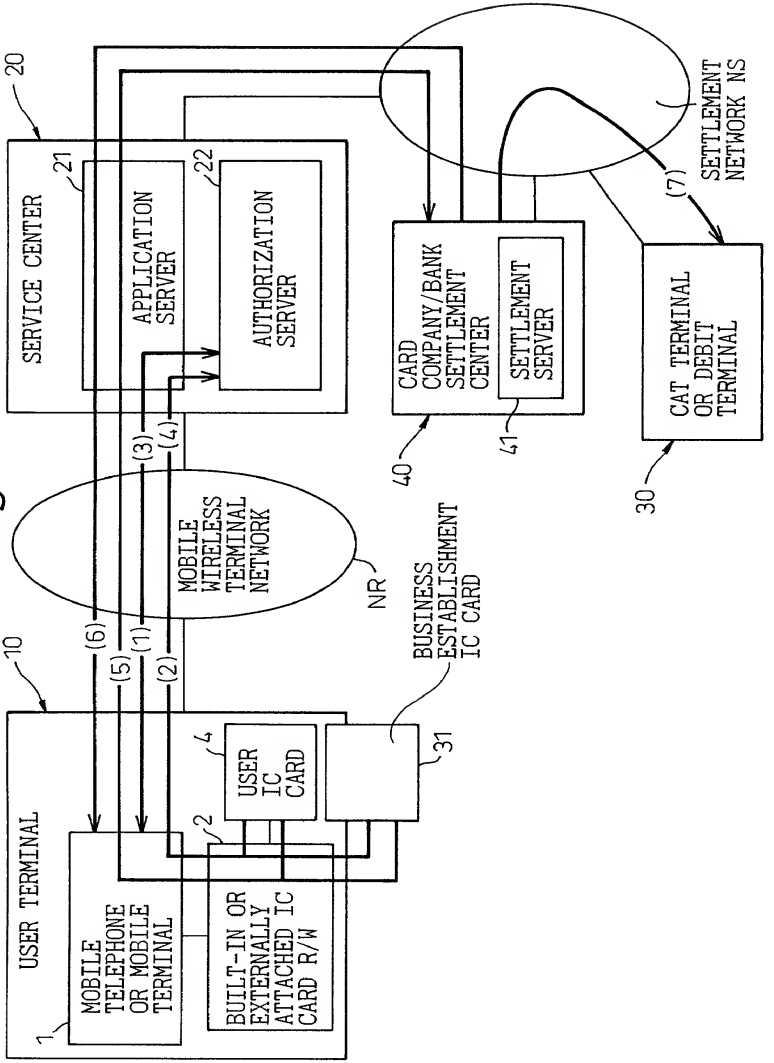

USER TERMINAL
10
MOBILE TELEPHONE OR MOBILE TERMINAL
1
BUILT-IN OR EXTERNALLY ATTACHED IC CARD R/W
2
USER IC CARD
4
BUSINESS ESTABLISHMENT IC CARD
31
MOBILE WIRELESS TERMINAL NETWORK
NR
SERVICE CENTER
20
APPLICATION SERVER
21
AUTHORIZATION SERVER
22
CARD COMPANY/BANK SETTLEMENT CENTER
40
SETTLEMENT SERVER
41
CAT TERMINAL OR DEBIT TERMINAL
30
SETTLEMENT NETWORK NS
(1)
(2)
(3)
(4)
(5)
(6)
(7)

Fig.8

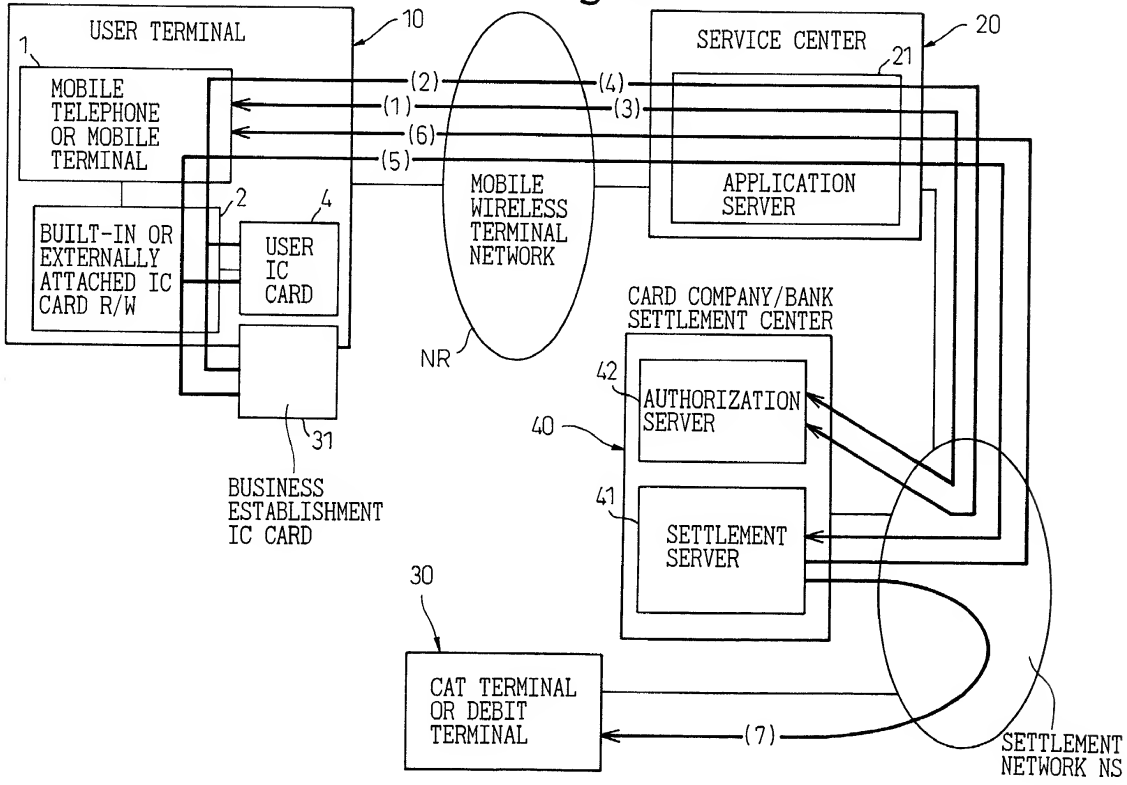

USER TERMINAL
10
1
MOBILE TELEPHONE OR MOBILE TERMINAL
BUILT-IN OR EXTERNALLY ATTACHED IC CARD R/W
2
4
USER IC CARD
31
BUSINESS ESTABLISHMENT IC CARD
(1)
(2)
(3)
(4)
(5)
(6)
MOBILE WIRELESS TERMINAL NETWORK
NR
SERVICE CENTER
20
21
APPLICATION SERVER
CARD COMPANY/BANK SETTLEMENT CENTER
40
42
AUTHORIZATION SERVER
41
SETTLEMENT SERVER
30
CAT TERMINAL OR DEBIT TERMINAL
(7)
SETTLEMENT NETWORK NS

Fig.9

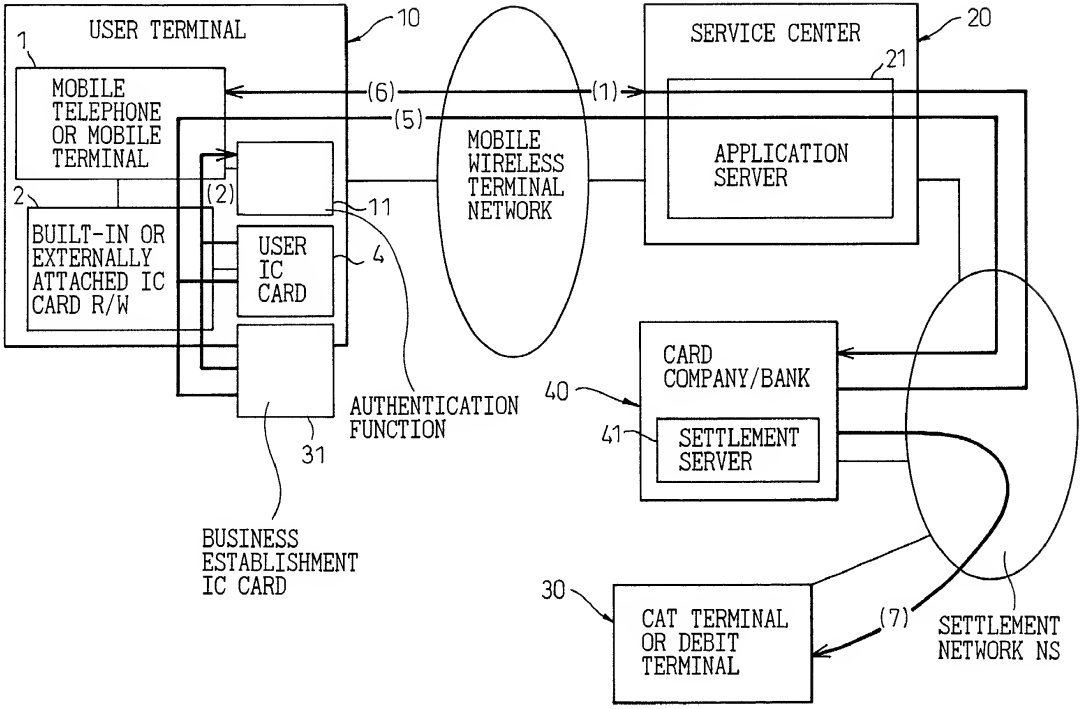

USER TERMINAL
10
1
MOBILE TELEPHONE OR MOBILE TERMINAL
2
BUILT-IN OR EXTERNALLY ATTACHED IC CARD R/W
(2)
11
USER IC CARD
4
AUTHENTICATION FUNCTION
31
BUSINESS ESTABLISHMENT IC CARD
(6)
(5)
(1)
MOBILE WIRELESS TERMINAL NETWORK
SERVICE CENTER
20
21
APPLICATION SERVER
CARD COMPANY/BANK
40
41
SETTLEMENT SERVER
30
CAT TERMINAL OR DEBIT TERMINAL
(7)
SETTLEMENT NETWORK NS

Fig.10

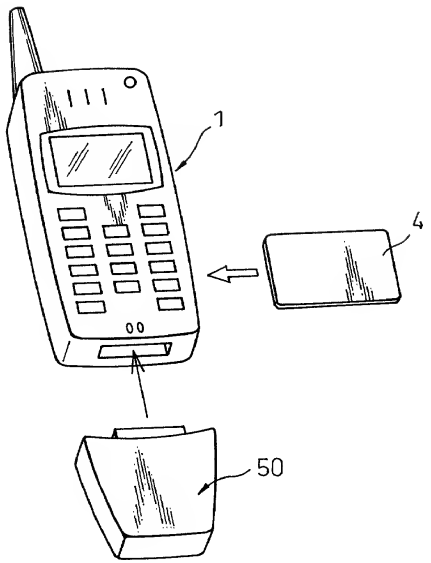


Fig.11

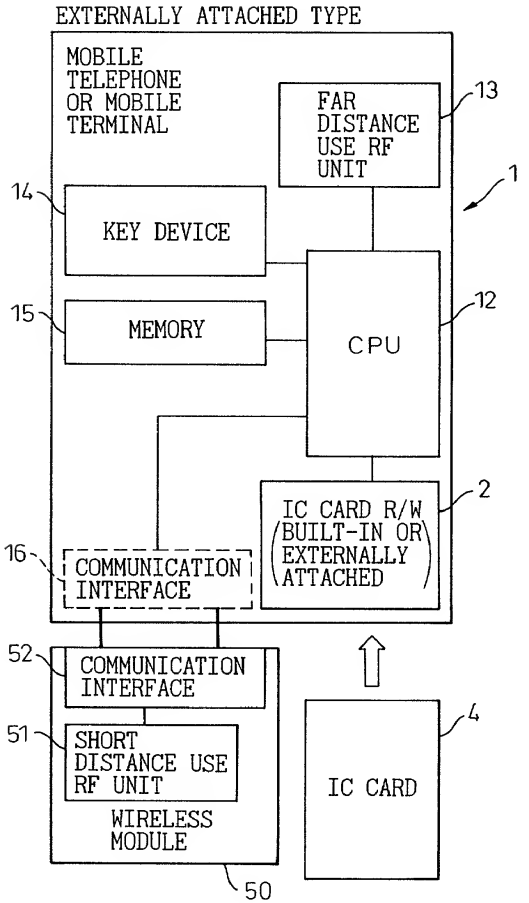

EXTERNALLY ATTACHED TYPE
MOBILE TELEPHONE OR MOBILE TERMINAL
FAR DISTANCE USE RF UNIT
13
1
14
KEY DEVICE
15
MEMORY
CPU
12
IC CARD R/W (BUILT-IN OR EXTERNALLY ATTACHED)
2
16
COMMUNICATION INTERFACE
52
COMMUNICATION INTERFACE
51
SHORT DISTANCE USE RF UNIT
WIRELESS MODULE
50
IC CARD
4

Fig.12

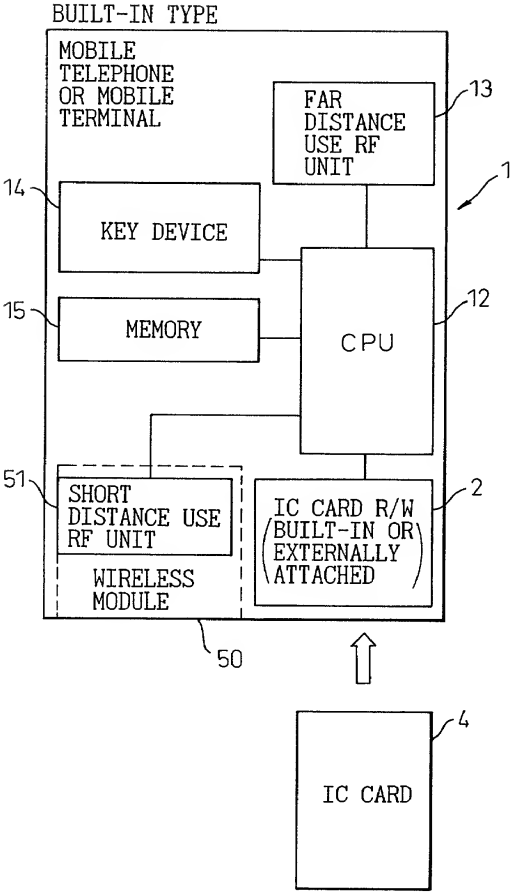

BUILT-IN TYPE
MOBILE TELEPHONE OR MOBILE TERMINAL
FAR DISTANCE USE RF UNIT
13
1
14
KEY DEVICE
15
MEMORY
CPU
12
51
SHORT DISTANCE USE RF UNIT
WIRELESS MODULE
IC CARD R/W BUILT-IN OR EXTERNALLY ATTACHED
2
50
4
IC CARD

Fig.13

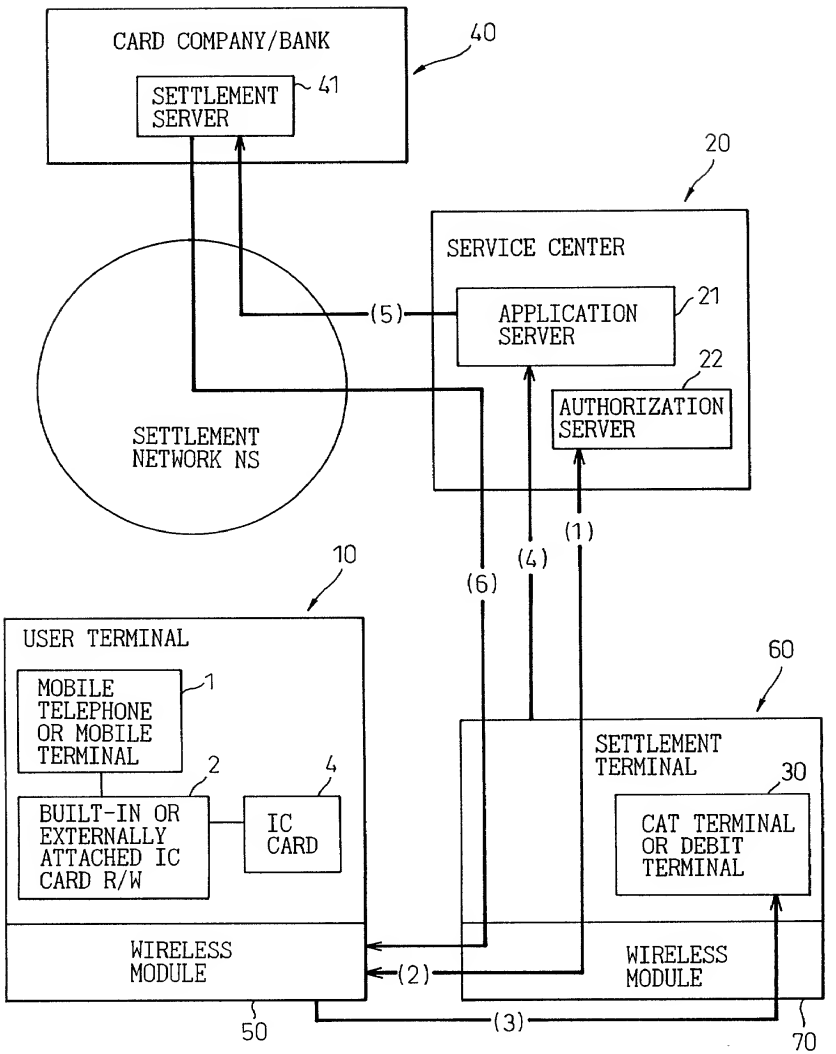

CARD COMPANY/BANK
40
SETTLEMENT SERVER
41
20
SERVICE CENTER
APPLICATION SERVER
21
22
AUTHORIZATION SERVER
(5)
SETTLEMENT NETWORK NS
(1)
(4)
(6)
10
USER TERMINAL
MOBILE TELEPHONE OR MOBILE TERMINAL
1
2
4
BUILT-IN OR EXTERNALLY ATTACHED IC CARD R/W
IC CARD
60
SETTLEMENT TERMINAL
30
CAT TERMINAL OR DEBIT TERMINAL
WIRELESS MODULE
(2)
WIRELESS MODULE
50
(3)
70

Fig.14

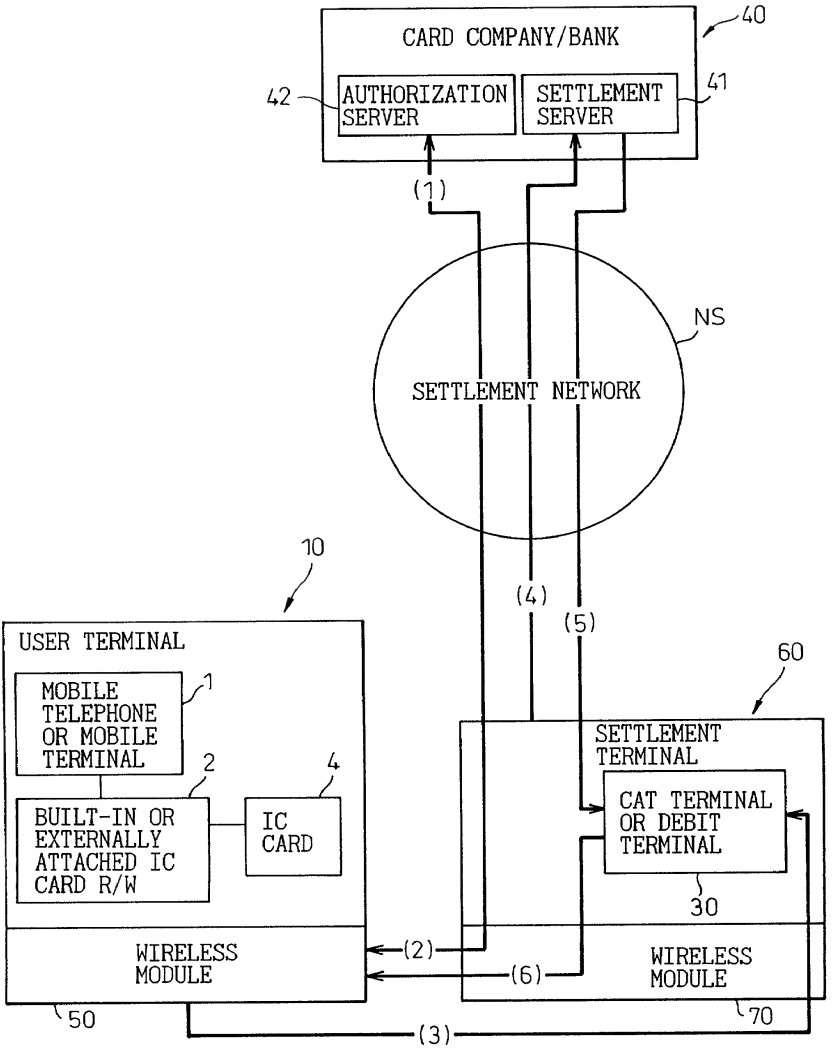
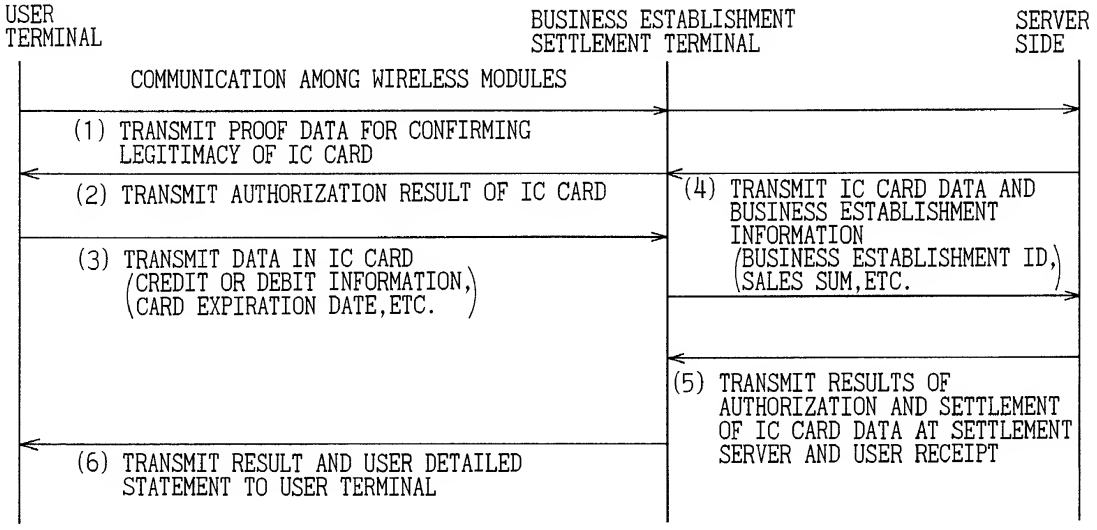

CARD COMPANY/BANK
40
AUTHORIZATION SERVER
42
SETTLEMENT SERVER
41
(1)
NS
SETTLEMENT NETWORK
10
USER TERMINAL
MOBILE TELEPHONE OR MOBILE TERMINAL
1
2
4
BUILT-IN OR EXTERNALLY ATTACHED IC CARD R/W
IC CARD
(4)
(5)
60
SETTLEMENT TERMINAL
CAT TERMINAL OR DEBIT TERMINAL
30
WIRELESS MODULE
(2)
(6)
WIRELESS MODULE
50
70
(3)

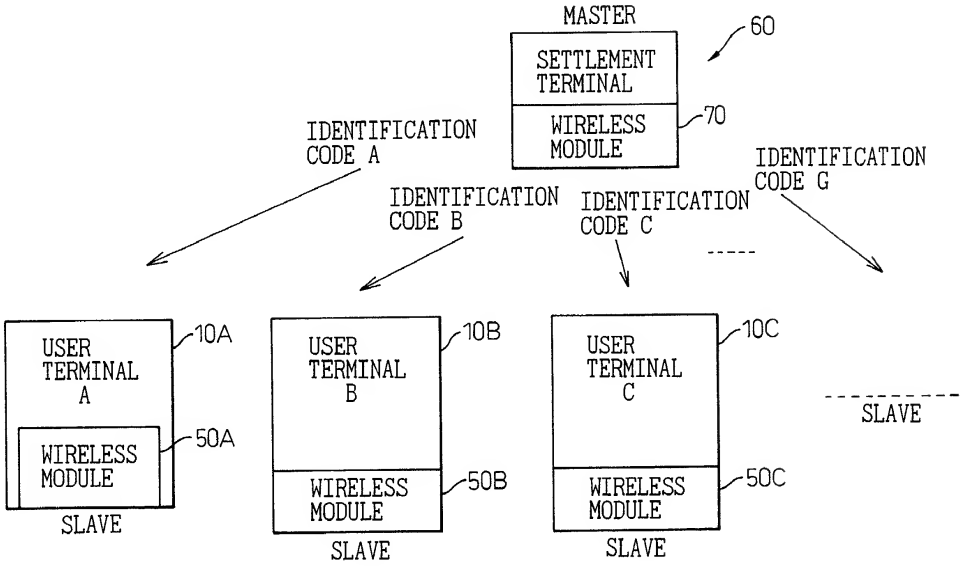
Fig.15

SETTLEMENT SEQUENCE AMONG WIRELESS MODULES



*DATA AMONG WIRELESS MODULES ARE ENCRYPTED BY USING ENCRYPTION METHOD OF USED WIRELESS PROTOCOL

Fig.16


MASTER
60
SETTLEMENT TERMINAL
WIRELESS MODULE
70
IDENTIFICATION CODE A
IDENTIFICATION CODE B
IDENTIFICATION CODE C
IDENTIFICATION CODE G
USER TERMINAL A
10A
WIRELESS MODULE
50A
SLAVE
USER TERMINAL B
10B
WIRELESS MODULE
50B
SLAVE
USER TERMINAL C
10C
WIRELESS MODULE
50C
SLAVE
SLAVE